



**Medtronic**

K070286

MAY 22 2007

## **510(k) Summary**

**Date Prepared:** January 26, 2007

**Submitter:** Medtronic  
7611 Northland Drive  
Brooklyn Park, MN 55428

**Contact Person:** Cheryl Norton  
Principle Regulatory Affairs Specialist  
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### **Device Name and Classification:**

Trade Name: Bio-Console® 560  
Common Name: Cardiopulmonary bypass pump speed control  
Regulation Number: 21 CFR 870.4380  
Product Code: DWA  
Classification: Class II

### **Predicate Devices:**

Medtronic Bio-Console® 560 (K051303)  
Terumo System 1 (K022947)  
Rocky Mountain Research, Inc. Automatic Tubing Clamp System (K961364)

### **Device Description:**

The Bio-Console® 560 is an extracorporeal blood pumping console consisting of a Base Unit with a display and a User Interface (touch screen) with integrated flow control knob. In order to perform its intended function, the Bio-Console® 560 is compatible with the Medtronic External Drive Motor, disposable Centrifugal Pump, Flow Transducer with disposable Insert, and emergency Handcrank.

### **Indications for Use**

The Medtronic centrifugal blood pumping system is intended to pump blood through the extracorporeal bypass circuit for extracorporeal support for periods appropriate to cardiopulmonary bypass procedures (up to 6 hours).

### **Comparison to Predicate Devices**

The Bio-Console® 560 has new technological characteristics compared to the existing device. The modifications for version 1.5 add optional Safety Systems: Bubble Detector,

Level Sensors, and AutoClamp. User selectable options have also been added to control the speed of the centrifugal pump and/or activate the AutoClamp when air is detected or if there is low fluid in the reservoir. Air detection and level sensing are features that are already available on the Terumo System 1 and the automatic arterial clamp is already available as the Rocky Mountain Research, Inc. Automatic Tubing Clamp System.

#### **Summary of Performance Data**

Functional, hardware and software testing was used to establish the performance characteristics for the modifications of this device compared to previously marketed devices. Clinical testing was not required to establish substantial equivalence.

#### **Conclusion**

Medtronic has demonstrated that the Bio-Console® 560 is substantially equivalent to the predicate devices based upon design, test results, and indications for use.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

MAY 22 2007

Medtronic, Inc.  
c/o Ms. Cheryl Norton  
Principal Regulatory Affairs Specialist  
7611 Northland Drive  
Brooklyn Park, MN 55428

Re: K070286  
Bio-Console® 560  
Regulation Number: 21 CFR 870.4380  
Regulation Name: Cardiopulmonary Bypass Pump Speed Control  
Regulatory Class: Class II  
Product Code: DWA  
Dated: May 15, 2007  
Received: May 16, 2007

Dear Ms. Norton:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

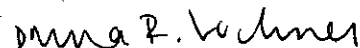
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.


Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



 Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K070286

Device Name:

**Bio-Console® 560**

Indications for Use:

**The Medtronic centrifugal blood pumping system is intended to pump blood through the extracorporeal bypass circuit for extracorporeal support for periods appropriate to cardiopulmonary bypass procedures (up to 6 hours).**

Prescription Use   x    
(Part 21 CFR 801 Subpart D)

AND/OR Over-The Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE  
OF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

*Diana R. Volmer*  
(Division Sign-Off)  
Division of Cardiovascular Devices

510(k) Number K070286